STATE OF ALASKA

REGULATORY COMMISSION OF ALASKA

Before Commissioners:

Kate Giard, Chairman
Dave Harbour
Mark K. Johnson
Anthony A. Price
Janis W. Wilson

In the Matter of the Consideration of Adoption of Regulations to Implement Amendments to the Public Utilities Regulatory Policies Act of 1978 By the Energy Policy Act of 2005	)))))	R-06-5

COMMENTS OF THE MUNICIPALITY OF ANCHORAGE D/B/A MUNICIPAL LIGHT AND POWER

The Municipality of Anchorage d/b/a Municipal Light & Power ("ML&P") supports the comments of the Alaska Power Association ("APA"). In particular, ML&P believes that the RCA is required to determine: (a) which Alaska utilities are subject to the requirements of 16 U.S.C. Chapter 46, (b) for each standard established in the amendments, whether the adoption of the standard is necessary and appropriate to effect the purposes of Chapter 46, and (c) if the standard is appropriate, whether it should actually be implemented in some way by the RCA. ML&P believes that the RCA can discharge all of its obligations under EPAct 2005 in the current docket, and believes that since the Act applies to only four Alaska utilities, it should not be necessary to adopt regulations.

ML&P does not believe that it can add to the comments of APA from a legal point of view, but offers the following comments on the proposed standards based entirely on economic policy considerations.

ML&P would characterize the five proposed standards as follows:

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1. NET METERING. Should utilities be required to allow their customers to operate generation in parallel with the utility electric system so that the customer's generation either displaces the customer's load on the utility or flows back into the utility system "displacing" the customer's load from other periods?

2. FUEL SOURCES. Should utilities be required to develop a plan to "[m]inimize dependence on 1 fuel source … using a wide range of fuels and technologies, including renewable technologies."[1]? ML&P interprets the requirement to be to diversify fuel sources and technologies, and include renewable technologies.

3. FOSSIL FUEL GENERATION EFFICIENCY. Should utilities be required to develop and implement a 10-year plan to increase the efficiency of their fossil fuel generation?

4. TIME-BASED METERING AND COMMUNICATIONS. ML&P is not completely clear on the scope of issues which the RCA must consider relating to time based metering, but believes that the core question is: should the utilities be required to offer some form of time of use rates and the metering required to implement them?

5. INTERCONNECTION. Should utilities be required to interconnect with any customer's generation and allow parallel generation?

These issues are to be considered in terms of their appropriateness for the accomplishment of the purposes set forth in Chapter 46 : "[t]o encourage (1) conservation of energy supplied by electric utilities; (2) the optimization of the efficiency of use of facilities and resources by electric utilities; and (3) equitable rates to electric customers.

[1] 16 U.S.C.A. §2621(d)(12)

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The threshold question then, for each proposed standard, is whether it is likely to accomplish any of the purposes listed above, and if so, is it an appropriate way of accomplishing those purposes? In ML&P's view, no regulation should be adopted that is not specifically designed to accomplish a defined and explicitly stated regulatory purpose, and in this case, the purpose must be one of the three listed in the Act. If no purpose can be identified which a standard could be expected to achieve, adoption of the standard in uniform regulations should be rejected without further consideration.

If the standard could be expected to achieve one or more purposes, then the Commission should consider the following questions:

1. In the form believed to be supported by the standard, is the purpose acceptable? Is it legitimate and desirable, and is it important enough to justify the imposition on utilities of a regulation that will restrict available options and increase costs?

2. Is the purpose inconsistent with the normal motivations of the utilities' managements absent the proposed standard? If not, what is the need for the standard?

3. Is the proposed standard likely to be an effective means of achieving the purpose?

4. Is the proposed standard likely to be the most efficient means of achieving the purpose?

ML&P will organize its comments around these four questions by first trying to state which of the Act's purposes might be supported by each proposed standard, and then evaluating the purposes and standards in terms of the four questions.

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1. NET METERING

If net metering supports any of the purposes of the Act, it would have to be Number 2, the optimization of the efficiency of use of facilities and resources by electric utilities. In particular, the standard might be supposed to optimize the use of the facilities by which utility customers are connected to the grid, their aggregate loads are met, and their service is measured. The standard can not be expected to encourage the conservation of energy supplied by utilities, and it would actually be inimical to equitable rates to electric customers.

Net metering effectively requires utilities to purchase from their customers the lowest quality energy ever transacted at wholesale between utilities (nonfirm, if, when, where, and as available) at the same price at which they supply firm power, delivered exactly where the customer wants it, in quantities exactly matching the customer's needs, at exactly the time needed, to their retail customers. At today's costs, this amounts to requiring the utilities to purchase power for between three and five times what it is worth.

Net metering is irrelevant to Purpose Number 1, the conservation of energy, as what it requires is the purchase of energy from consumers by utilities. It relates to the generation and purchase of energy, rather than the conservation of energy.

Net metering is inimical to purpose Number 3, equitable rates, because it imposes costs caused by one set of customers, those operating generation, on a different set of customers (those not operating generation). This is not only inimical to Purpose Number 3, it is inconsistent with the first objective stated in 3 AAC 48.510, that the cost causer should be the cost payer.

With regard to Purpose Number 2, the optimization of the efficiency of use of facilities and resources used by electric utilities, ML&P believes that a generalized net metering requirement would be counterproductive. Since net metering would require utilities to

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purchase low quality power from customers at prices far exceeding the utilities' avoided cost, it would reduce, not enhance, the efficiency of use of the utilities' generation resources by causing them to be displaced by economically less efficient resources operated by their customers. A related aspect of the problem is that it would cause customers to invest in uneconomic generation because they could sell its output for more than it would be worth. This not only fails to support Purpose Number 2, it is inconsistent with objective (5) of 3 AAC 48.510 ("optimal use, which includes considerations of efficiency").

The defects of net metering described above can be corrected by offering net metering only in separate rate schedules designed to recover the costs imposed by self generators. These rate schedules would recover the utility's fixed costs of service to the customer through a combination of customer charge and demand charge (the demand charge would have to be based on intervals longer than the one month currently considered normal), and recover only the variable cost (ideally the marginal cost, but variable cost would be a reasonable proxy) of generation through the energy charge. This approach would be the retail equivalent of net requirements wholesale service. Alternatively, the demand related costs could be limited by limiting the demands the customer could place on the system. This approach would be the retail equivalent of a wholesale capacity contract.

While either of these approaches is possible, it does not seem that either one is superior to separating the customer's relationships with the utility into a conventional all requirements retail electric service and a small power purchase by the utility. Utilities in Alaska are already required to purchase the output of small power production facilities at a price approximately equal to the variable cost of production. This price is reasonable for nonfirm energy. Regulated electric utilities in Alaska are also required to purchase firm power from Qualifying Facilities at the utility's avoided cost for firm power, as determined by the Commission.

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In summary, the proposed net metering standard does not appear to be a necessary or appropriate tool for the accomplishment of any of the three purposes of Chapter 46 in Alaska, and in its simple form would be inconsistent with 3 AAC 48.510. For these reasons, ML&P believes that it would not be appropriate to adopt the standard in uniform regulations. In addition, if the Commission does adopt a net metering requirement, it should not apply to all utility rates, because there is no way to design rates that would be fair to non-generating customers if the same rates are also applied to generating customers. If net metering rates are deemed necessary, they should be separate from the all requirements rates.

2. FUEL SOURCES

The proposed fuel sources standard does not appear to be related to any of the stated purposes of Chapter 46. For that reason alone, ML&P believes that it should not be adopted in this proceeding. In addition, ML&P does not believe that the standard would be good policy given any reasonable purposes, for the reasons stated below.

Clearly, all other things being equal, diversity of fuel sources (and diversity of generation sites, and multiplicity of machines) is desirable. The benefit of this diversity is risk reduction.[2] For many years, ML&P has maintained the ability to burn oil in most of its thermal generation equipment even though it has never used oil other than for test purposes since natural gas became available in Anchorage. This diversity of fuel sources has been costly to maintain, but ML&P has considered the cost to be justified in terms of reliability. If there were (or if there occurs in the future) a realistic opportunity to add new fuels to the current mix, ML&P would certainly be interested. In fact, ML&P has difficulty imagining that any utility would not be interested in diversifying its generation resources.

[2] The risk reduction is not as obvious as it might seem, however. Diversifying fuel sources reduces the risk of experiencing a loss of supply or a price run-up of *all* of the utility's fuel, but it increases the risk of loss of supply or price run-up of *a portion* of the utility's fuel. Thus, unless there is redundancy in the utility's fuel supply arrangements, diversity could increase the risk of the utility's fuel supply becoming inadequate. This

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However, in a world (Alaska) were most regions have only one fuel source readily available at anything close to the minimum cost (natural gas in some regions, oil or derivatives of oil in others, possibly coal in a very few regions) and where one of the biggest cost drivers is the small size of the scale of operations necessary to have even machine redundancy, let alone fuel type redundancy, it is unlikely that any utility will be able to further diversify its fuel sources at reasonable cost. Therefore, the only likely effect of the standard would be that the utilities would execute some planning process which would confirm whatever plans they would otherwise develop. Other than the waste of resources developing a redundant plan, this is not particularly harmful, but it is not likely to be helpful, either.

ML&P does believe that the Commission might be able to improve the environment in which utilities make their generation resource decisions if it could provide some indication of the value which it puts on the two benefits that might be produced by fuel source diversity: lower supply risk and lower price risk. For example, a declaration that certain costs associated with fuel diversity will be assumed prudent would probably increase the willingness of utilities to commit to incremental fuel sources that are more costly than the primary fuel source.

With regard to renewable resources, ML&P believes it is unreasonable to simply assume that utilities should acquire renewable resources. Renewable resource opportunities in Alaska tend to be sparse, isolated, and expensive. ML&P assumes that all utilities would like to acquire renewable resources if they could do so cost effectively, so no standard is likely to be necessary to cause utilities do develop cost effective renewables. If this is true, the only reason for adopting a standard would be to require utilities to develop renewable resources that are not cost effective. It would be a major undertaking to develop a justification for doing that, and since it does not seem to be required by EPAct 2005, ML&P does not believe that it should be done in this proceeding.

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is not an argument against fuel supply diversification, it is merely a caution that all of the effects should be considered.

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3. FOSSIL FUEL GENERATION EFFICIENCY.

This standard relates to Purposes Number 1 and 2, but is unnecessary because utilities already have every reason to maximize the thermal and economic efficiency of their thermal generation, and that is what the standard requires. In Alaska, it is reasonable to believe that all prudently operated electric utilities seek to implement all cost effective improvements to the efficiency of their thermal generation and that they have an appropriate incentive to do so. It should not be necessary to require any particular planning process for the accomplishment of this objective. There is also no reason to think that if a utility develops and executes one 10 year plan it will achieve the maximum cost effective thermal efficiency at any time in the future.

ML&P believes that because the incentives facing utilities are already aligned with the purposes of the Act, no standard is necessary.

4. TIME-BASED METERING AND COMMUNICATIONS.

Regarding time based metering, ML&P believes the following:

1. Some types of time-based metering, with or without communications, can produce significant benefits for some types of customers.

2. Time-based metering is still significantly more costly than "conventional" metering.

3. Most utilities will seek to implement time-based metering in some form when the benefits exceed the costs.

4. There is no reason to adopt the time based metering standard in uniform regulations at this time.

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ML&P does expect that at some time in the future, some form of time-based metering will become cost effective in certain areas of the state, and ML&P is eager to begin implementing it when that happens in ML&P's area. However, the costs are still significant, and the benefits are speculative, given that they would require Commission support of rate concepts that have no history in Alaska and are not currently widely accepted.

To give a very rough idea of the cost involved, ML&P is an approximately 180 MW utility with about 30,000 meters and an annual revenue requirement in the $100 million range. A very cursory review of the cost of converting all of its metering to TOU suggests an investment on the order of $7-8 million, of which about $2 million would be early retirement of existing meters and $5-6 million would be increased cost of upgraded meters. This investment would generate a revenue requirement averaging, in the long run, about $800,000 to $900,000 per year. The new meters would also cost an extra $100,000 or so per year to maintain, mostly for periodic replacement of backup batteries. So, the increase in metering costs would be on the order of 1% of ML&P's annual revenue requirement. This is not at all a rigorous estimate, so the true cost will lie somewhere in a rather broad range around the estimate, and 1% of a utility's costs is not so high as to render TOU metering out of the question; but it is significant, and therefore should be approached with due regard for the costs and benefits. In addition, beyond the costs identified above, implementation of time based metering will require additional administrative and professional costs associated with development, review, approval, and ongoing modification of a more complex ratemaking requirement.

In summary, ML&P believes that it is not necessary or appropriate to adopt the federal time based metering standard in Alaska at this time. Instead, the Commission should clearly encourage utilities to propose appropriate time based metering services if and when the benefits exceed the costs. Utilities could then be expected to make efficient investment decisions based on the perceived costs and benefits of time based metering programs that are appropriate to each utility.

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5. INTERCONNECTION WITH CUSTOMER OWNED GENERATION.

ML&P believes that utilities are already required to interconnect with customer owned generation under most circumstances, and would not object if the requirement were made more general, provided that the customers involved pay the costs. It also might be useful for comprehensive interconnection standards to be adopted, which could reduce uncertainty for both utilities and customers wishing to connect generation to the distribution system.

It should be pointed out, however, that connecting generation to a distribution system requires a comprehensive redesign of the distribution protection scheme, and significant modification of operating procedures, in order to protect both the public and the utility's personnel from possible contact with lines that are energized not from the utility's system but from customer owned generation. This is because distribution systems are typically designed with the assumption that all power flows radially from the substations. This means that interrupting the connection between any portion of any feeder and its substation will de-energize that portion of the feeder (unless some customer is back-feeding the system by operating emergency generation without disconnecting from the system. All utility tariffs prohibit this practice). With distributed generation, separating a feeder from its substation will not necessarily de-energize the feeder, so it will be necessary to develop additional protection schemes and operating procedures to assure that any part of the system being worked on, or that is capable of being accidentally contacted, cannot become energized from either the substation or some customer's generator. The cost of the transition will not be trivial, and there will probably be continuing additional operational costs, which should be born by the customers benefiting by interconnecting their generation with the distribution system.

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CONCLUSION.

Overall, ML&P believes that none of the standards proposed for consideration in EPAct 2005 would be appropriate for adoption in Alaska. However, ML&P is open to the possibility of an interconnection standard for small generators, provided that such a standard were carefully designed to protect the safety and reliability of the electric distribution systems to which it would apply, and the costs were born by the generators seeking interconnection.

RESPECTFULLY SUBMITTED this 23rd day of October 2006, at Anchorage, Alaska.

Municipality of Anchorage
d/b/a Municipal Light & Power

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